

10/530024

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A tumor targeting unit comprising a peptide sequence:

Cy-Rr_n-Dd-Ee-Ff-Rr_m-Cyy

or a pharmaceutically or physiologically acceptable salt thereof,

wherein,

Dd-Ee-Ff is Aa-Bb-Cc, Cc-Bb-Aa, Bb-Cc-Aa, Aa-Cc-Bb, Cc-Aa-Bb,

or Bb-Aa-Cc, wherein

Aa, is isoleucine, leucine or *tert*-leucine, or a structural or functional analogue thereof;

Bb is arginine, homoarginine or canavanine, or a structural or functional analogue thereof;

Cc is glutamic acid or aspartic acid, or a structural or functional analogue thereof;

Rr are each, independently, any amino acid residue or structural or functional analogues thereof;

n and m are, independently, 0-7, and the sum of n and m does not exceed seven; and,

Cy and Cyy are entities capable of forming a cyclic structure through an amide or ester bond, or through a hydrazone-like structure.

2. (Original) The tumor targeting unit according to claim 1, wherein Dd-Ee-Ff is Aa-Bb-Cc or Cc-Bb-Aa.

3. (Currently Amended) The tumor targeting unit according to ~~any of~~ claim 1 ~~or 2~~, wherein the peptide is cyclic or forms part of a cyclic structure.

4. (Original) The tumor targeting unit according to claim 3, wherein the cyclic structure is a lactam or a lactone.

5. (Currently Amended) The tumor targeting unit according to ~~any one of~~ claims claim 1 to 4, wherein ~~wherein~~ one of Cy and Cyy is aspartic acid, glutamic acid or a structural or functional analogue thereof, and the other is lysine, ornithine or a structural or functional analogue thereof.

6. (Original) The tumor targeting unit according to claim 5, wherein the sum of n and m is two.

7. (Currently Amended) The tumor targeting unit according to ~~any one of~~ claims claim 1 –5, wherein Rr_n and Rr_m are absent.

8. (Currently Amended) The tumor targeting unit according to ~~any one of~~ claims claim 1 –7, wherein Rr is any amino acid residue, except histidine or lysine.

9. (Original) The tumor targeting unit according to claim 8, wherein Rr is selected from the group consisting of glycine, arginine and structural or functional analogues thereof.

10. (Currently Amended) The tumor targeting unit according to ~~any one of~~ ~~claims~~ claim 1 to 9, wherein Dd-Ee-Ff is IRE, LRE, LRD or ERI or a structural or functional analogue thereof.

11. (Original) The tumor targeting unit according to claim 5 having the formula selected from the group consisting of DIREK (SEQ ID NO. 3), DERIK (SEQ ID NO. 4) and being cyclic by virtue of a lactam bond between D and K.

12. (Currently Amended) The tumor targeting unit according to ~~any one of~~ ~~claims~~ claim 1 or 2 having the formula selected from the group consisting of IQLRD (SEQ ID NO. 5), IQLRDWGFIL (SEQ ID NO. 6), LRELS (SEQ ID NO. 7) and LRELSMGYFK (SEQ ID NO. 8).

13. (Currently Amended) The tumor targeting unit according to ~~any of the~~ ~~previous claims~~ claim 1, wherein the unit is derivatized, activated, protected, resin bound or other support bound.

14. (Currently Amended) A tumor targeting agent comprising at least one targeting unit of ~~any of claims 1 to 13~~ according to claim 1, directly or indirectly coupled to at least one effector unit.

15. (Original) The tumor targeting agent according to claim 14, wherein the effector unit is a directly or indirectly detectable agent or a therapeutic agent.

16. (Original) The tumor targeting agent according to claim 15, wherein the detectable agent comprises an affinity label, a fluorescent or luminescent label, a chelator, a metal complex, an enriched isotope, radioactive material or a paramagnetic substance.

17. (Original) The tumor targeting agent according to claim 16, wherein the detectable agent is a rare earth metal.

18. (Original) The tumor targeting agent according to claim 17, wherein the detectable agent is gadolinium.

19. (Original) The tumor targeting agent according to claim 15, wherein the therapeutic agent is selected from the group consisting of cytotoxic and cytostatic substances and radiation emitting substances.

20. (Original) The tumor targeting agent according to claim 19, wherein the therapeutic agent is selected from the group consisting of doxorubicin, daunorubicin, methotrexate or boron.

21. (Currently Amended) A diagnostic or pharmaceutical composition comprising at least one targeting unit according to ~~any one of claims 1 to 13 or at least one targeting agent according to any one of claims 14 to 20~~ claim 1.

22. (Currently Amended) ~~Use of a targeting unit according to any one of claims 1 to 13, or a targeting agent according to any one of claim 14 to 20~~ A method for the preparation of a medicament for the treatment of cancer or cancer related diseases comprising using a targeting unit according to claim 1.

23. (Currently Amended) The use method according to claim 22, wherein said cancer is a solid tumor.

24. (Currently Amended) The use method according to claim 23, wherein the cancer is selected from the group consisting of carcinoma, sarcoma, melanoma or metastases.

25. (Original) A method for treating cancer or cancer related diseases, comprising providing to a patient in need thereof a therapeutically effective amount of a pharmaceutical composition according to claim 21.

26. (Currently Amended) The method according to claim ~~26~~ 25, wherein said cancer or cancer related disease is a solid tumor.

27. (Original) The method according to claim 26, wherein said solid tumor is selected from the group consisting of carcinoma, sarcoma, melanoma or metastases

28. (New) A diagnostic or pharmaceutical composition comprising at least one targeting agent according to claim 14.

29 (New) A method for the preparation of a medicament for the treatment of cancer or cancer related diseases comprising using a targeting agent according to claim 14.

30. (New) A method for treating cancer or cancer related diseases, comprising providing to a patient in need thereof a therapeutically effective amount of a pharmaceutical composition according to claim 28.